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ABSTRACT

Identification with academics is the extent to which an individual bases his or her self-esteem on outcomes in the academic domain. Theory suggests that students who are highly identified with academics should be more motivated to succeed in a domain, and thus more likely to experience desirable academic outcomes and avoid undesirable outcomes, such as dropping out of school or obtaining poor grades. Two studies examined the validity of this hypothesis. In the first study, data from the National Education Longitudinal Study of 1988 show that 2 years prior to dropping out of school, substantial differences in identification are present between those who drop out and those who do not. Study 2, which involved the entire entering ninth-grade class of a high school, showed that identification with academics is related to psychological variables such as holding learning goals, intrinsic valuing of academics, self-regulation, holding a mastery orientation, and amount of processing course material receives. Identification with academics also prospectively predicts future academic outcomes such as grades, behavioral referrals, and absenteeism. (Contains 17 references.) (Author/SLD)

Identification with Academics and Academic Outcomes in Secondary Students

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American Educational Research Association, 2001

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Identification with Academics and Academic Outcomes in Secondary Students

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Identification with academics is the extent to which an individual bases their self-esteem on outcomes in the academic domain. Theoretically, students who are highly identified with academics should be more motivated to succeed in a domain, and thus more likely to experience desirable academic outcomes and avoid undesirable outcomes, such as dropping out and poor grades. Two studies examined the validity of this hypotheses. In the first study, data from NELS 88 show that, two years prior to dropping out, substantial differences in identification are present between those who drop out and those who do not. Study two showed that identification with academics is: (a) related to psychological variables such as holding learning goals, intrinsic valuing of academics, self-regulation, holding a mastery orientation, and amount of processing course material receives, and (b) prospectively predicts future academic outcomes such as grades, behavioral referrals, and absenteeism.

Why are some retained while others withdraw (either physically or psychologically)? Many studies have looked at academic performance and withdrawal from school, often from a risk factor or deficit model, often finding factors such as race and SES culpable. Unfortunately, if the goal of this research is to improve the situation, this approach leaves few avenues, as many of these factors (race, SES, e.g.) are immalleable. Other research has shown that engagement behaviors (punctuality, preparedness for class, and effort expenditure on academic tasks, and conversely absenteeism, truancy, disruptiveness, and delinquency) relate to poor academic outcomes (e.g., Finn, 1989; Finn & Rock, 1997). While more interesting, we are still left wondering why certain students exhibit engagement behaviors, while others do not. Several authors (e.g., Newmann, 1981; Osborne, 1997a, b) have argued the key to understanding these phenomena is identification with academics, the extent to which outcomes in a domain affect overall feelings of self-worth (also referred to as psychological centrality, selective valuing). In other words, identification with academics is the extent to which one psychologically defines the self through performance in a domain.

This concept of identification with a domain goes back at least as far as William James (1890/1950), and has been carried through theories of self and self-protection to the present. Identification with a domain has been theoretically linked to outcomes in that domain (e.g., Osborne, 1995, 1997a; see Steele, 1997). Taking the case of academics, it is conceivable that, relative to students who disidentify from academics, students who are identified with academics should be more motivated to succeed, and persist longer in the face of failure, because their self-esteem is more strongly influenced by academic performance. For these students, good performance should be intrinsically rewarding (higher

self-esteem), poor performance should result in an aversive state, such as lower self-esteem. In contrast, academic disidentification should lead to lower motivation to succeed because there is little contingency between academic outcomes and self-esteem-- good performance is not intrinsically rewarding, and poor performance is not intrinsically punishing, leaving disidentified students with little incentive to expend effort in academic endeavors. These individuals may therefore be at higher risk for academic problems, especially poor grades and dropping out. Testing this idea, Osborne (1997b) reported that, among community college students, the psychological centrality of academics prospectively predicted important academic outcomes over a two-year period, such as grades, being placed on probation for academic cause, dismissal for academic cause, being placed on the honor roll, and being placed on the Dean's list. More developed literatures in other fields, such as management, make similar arguments and reports similar results (see, e.g., Kanungo, 1979).

Thus, there is a theoretical argument identification with academics could be a basic predictor of academic success. This is an important idea because theoretically, the psychological centrality of academics is fairly malleable (see, e.g., Taylor & Brown, 1988; Tesser & Campbell, 1980; Tesser, Millar, & Moore, 1988), and because differences in the psychological centrality of academics have been explicitly posited to be causing racial and ethnic disparities in academic outcomes by Steele (e.g., 1992, 1997) and Osborne (e.g., 1995, 1997a). Empirically, Osborne (e.g., 1997a) has shown that identification with academics decreases substantially for African-American boys as they move from eighth grade through high school, potentially explaining the disproportionately high

Table 1
Identification with academics by race and retention status

	Retained		Dropout		Dropout due to pregnancy	
	Correlation	Effect size (r^2)	Correlation	Effect size (r^2)	Correlation	Effect size (r^2)
<u>Tenth Grade Boys</u>						
Latino	.41 _a *** (N=651)	.17	-.17 _b (N=51)	.03		
African-American	.43 _a *** (N=1012)	.18	.17 _b (N=124)	.03		
White	.40 _a *** (N=6435)	.16	.14 _b * (N=286)	.02		
<u>Tenth Grade Girls</u>						
Latino	.36 _a *** (N=1038)	.13	-.13 _b (N=70)	.02	.37 _a ** (N=45)	.14
African-American	.38 _a *** (N=1295)	.14	-.09 _b (N=77)	.01	.25 _a (N=53)	.06
White	.39 _a *** (N=6237)	.15	.17 _b * (N=161)	.03	.15 _b (N=134)	.02
<u>Twelfth Grade Boys</u>						
Latino	.39 _a *** (N=533)	.15	-.04 _b (N=66)	.00		
African-American	.20 _a *** (N=971)	.04	.01 _a (N=77)	.00		
White	.31 _a *** (N=7023)	.10	.16 _b ** (N=288)	.03		
<u>Twelfth Grade Girls</u>						
Latino	.60 _a *** (N=577)	.36	.08 _b (N=65)	.01	.08 _b (N=39)	.01
African-American	.30 _a *** (N=1091)	.09	-.08 _b (N=37)	.01	.19 _a (N=36)	.04
White	.38 _a *** (N=6974)	.14	.03 _b (N=262)	.00	.26 _a *** (N=151)	.07

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. Correlations with different subscripts differ within row and retention group at $p < .05$. Data for tenth grade dropouts/retainees gathered at eighth grade data collection. Data for twelfth grade dropouts/retainees gathered at tenth grade data collection. Effect size is interpreted as percent of variance that is shared between the two variables.

dropout rate and poor academic outcomes these boys experience.

Unfortunately, this research has received little attention, and has suffered from major methodological challenges, chiefly a lack of a good measure of psychological centrality or identification with academics. Although Voelkl (1996) and Osborne (1997b) have both presented questionnaires designed to measure this construct, little work has been done with them.

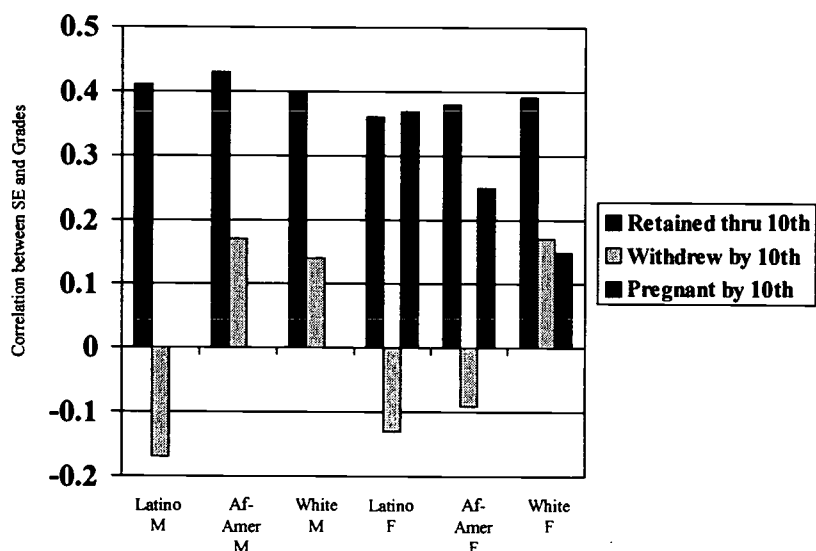
The goal of the current paper is to test the assertion that identification with academics predicts academic outcomes in secondary school populations. This paper will present two studies. The first is a study using a large national database, testing the proposition that students who withdraw from school will hold academics as less central to their self concepts (i.e., be less identified) than students who do not drop out, regardless

of race or sex. The second will report on the results of the first year of a multiyear longitudinal study testing whether identification with academics will predict academic outcomes for a group of over 200 racially diverse, inner-city high school students.

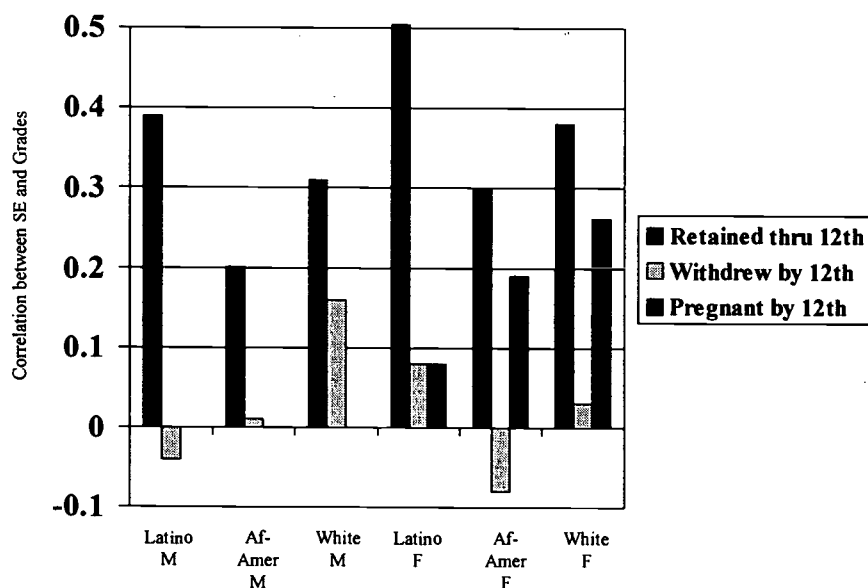
STUDY 1

The goal of this study was to test the assertion that identification with academics will be related to withdrawal from school. Participants were drawn from the 24,599 students who took part in the U.S. Department of Education's National Longitudinal Survey of 1988 (NELS88). Students who had complete data on relevant variables, and who were explicitly identifiable as African-American, Latino, or White, were included in these analyses

Identification with Academics at 8th Grade Predicting 10th Grade Outcomes



Identification with Academics at 10th Grade Predicting 12th Grade Outcomes



Measures

Information on students' race, sex, socioeconomic status, dropout/retention status, and pregnancy status were obtained directly from the NCES data files relating to this study. . Girls who withdrew due to pregnancy were separated from the other girls who withdrew, and analyzed separately. Identification with academics was assessed via the direct correlation between academic outcomes (GPA) and self-esteem (Rosenberg Self-View Inventory, Rosenberg, 1965). Following directly from

self-esteem theory and previous research (Osborne, 1995, 1997a), higher correlations between self-esteem and outcomes indicate more identification with academics.

Results

The hypothesis to be tested is that students who withdraw from school will show significantly lower levels of identification than those retained. No explicit hypotheses were posited relating to the girls who withdrew due to pregnancy. Two sets of retrospective

analyses were performed: one comparing the identification at eighth grade for those students who withdrew from school by tenth grade and those who were retained, and another set that compared tenth grade identification for those students who withdrew from school by twelfth grade and those who were retained. Correlations across groups were compared through procedures outlined in Cohen and Cohen (1983). The results of these analyses are presented in Table 1. The results presented in Table 1 indicated fairly substantial (and significant) identification differences between retained and dropout students. Identification with academics among retained students was fairly strong (ranging from .36 to .43 for tenth-graders, and .20 to .60 among twelfth graders. As expected from Osborne (1995, 1997a), African-American boys in twelfth grade had lower identification than Latino or White students. Further, with the exception of African-American boys in twelfth grade, all dropouts had significantly lower correlations (ranging from -.17 to .17 for tenth-grade, and -.08 to .16 for twelfth graders). Further, examination of the effect sizes show dramatic differences in the two groups: .16 and .12 for retained tenth and twelfth graders (respectively), and .03 and .01 for dropout tenth and twelfth graders (respectively). For pregnant girls, the results were mixed with Latina and African-American tenth graders as identified as their retained counterparts, but Whites less identified, whereas in twelfth grade, African-American and White girls were closer to their retained counterparts than Latina girls.

Discussion

These results generally support the assertion that identification with academics is related to academic outcomes. Students withdrawing from school generally had significantly and substantially lower identification with academics two years prior to withdrawal than students not withdrawing. While group-level correlational analyses are not ideal, the remarkable consistency of the patterns across racial and gender groups are compelling, and deserves further follow-up with more sensitive methodology. Finally, these findings highlight the need to study dropouts not as a homogeneous group, but rather as a set of perhaps qualitatively different subgroups.

STUDY 2

As group level analyses are very limited, a new longitudinal study was initiated in summer of 1999 to test the hypothesis of interest more rigorously. Prior to the start of the 1999-2000 school year, students entering ninth grade at a racially diverse inner-city high school in the southwest completed a battery of questionnaires designed to measure several constructs, including

identification with academics. Further, students in two alternative programs in the same school district also completed the questionnaires: a program for behaviorally disruptive students, and a program for pregnant girls. This section reports on the results of the first year of a four-year prospective longitudinal study.

Measures

Students completed the following questionnaires: Osborne's (1997b) School Perceptions Questionnaire and Voelkl's (1996) Identification with School Questionnaire (measures of identification with academics), Rosenberg Self-View Inventory (Rosenberg, 1965, global self-esteem), and the Survey of Learning Behaviors (adapted from Miller, Greene, Montalvo, Ravindran, and Nichols, 1996), a questionnaire that measures the extent to which students hold learning goals, performance goals, future goals, view school as having intrinsic value, perceived academic ability, self-regulation, mastery vs. competition orientation, and deep vs. shallow processing of information.

Upon completion of the 1999-2000 school year, the following outcome information was gathered: overall GPA, achievement test scores, attendance/absenteeism, and behavioral problems (as dropping out in ninth grade is rare, this information will not be gathered until later follow-ups).

Results

The first set of results tested the reliability and validity of Osborne's SPQ in this population (as it has received limited psychometric attention to date). Results revealed that Osborne's SPQ was reliable (Cronbach's alpha of 0.87, one-year test-retest reliability of $r = .64$), showed convergent validity with Voelkl's measure of identification with academics ($r = .76$), and was related to other constructs in a theoretically consistent manner (significantly related to learning goals ($r = .71$), performance goals ($r = .36$), future goals ($r = .38$), intrinsic valuing of academics ($r = .55$), perceived ability ($r = .29$), self-regulation ($r = .63$), mastery orientation ($r = .60$), academic competitiveness ($r = .40$), and cognitive processing of course material (deep processing $r = .62$, shallow processing $r = .51$, all p less than .05).

More importantly, identification with academics (SPQ scores) was shown to be related to important academic outcomes, such as GPA ($r = .52$), number of behavioral referrals ($r = -.20$), and number of days absent ($r = -.22$). Absentee data was found to have a curvilinear relationship to identification with academics. Using curvilinear regression, identification with academics (with quadratic component) had an $R = .292$, accounting for 9% of the variance in absenteeism.

Finally, as expected, identification differed significantly across the three groups of students—the behaviorally disruptive students showed significantly lower identification (mean=3.95) than with the girls in the pregnant program (mean=4.20) or the general high school population (mean=4.18, $F(1,298) = 3.87, p < .022$).

Discussion

As expected, identification with academics was related to academic outcomes in the secondary school population. Given the error in GPA from differing grading practices across teachers and differential difficulty of academic programs (which will bias correlation toward 0), a correlation of .52 demonstrates the importance of identification. While the correlation with behavioral referrals was weaker than expected, it is possibly due to the fact that severe infractions (physical assault, drug or tobacco usage) was combined with minor infractions (e.g., tardiness, arguing with a teacher). Follow-up data collection planned for this summer will collect information on these two types of behavioral problems separately, which may clarify that relationship.

CONCLUSIONS

These two studies test a hypothesis of increasing interest in the field: that identification with academics predicts academic outcomes. The first study demonstrated the general effect in a large national database using group-level analyses (which are methodologically and conceptually less desirable than individual-level analysis). The second study reports on the first year of a four-year longitudinal study to address this question in a more methodologically desirable fashion. Results from Study #2 were also supportive of the hypothesis of interest.

This paper, and others like it, are necessary in moving research on withdrawal and academic outcomes from a deficit or risk factor model to understanding underlying forces that drive these outcomes we seek to explain. While neither study is perfect, as a combination they move the field, and our understanding of the importance of identification with academics, forward.

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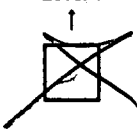
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